Participant Questionnaire

	17
Participant number:	1+

Date: 7/4/23

Location: Brescia

HRC Study / Algorithms tested: _________

Participant link lengths/dimensions: (meters, "spine" is pelvis to shoulder midpoint, "shoulders" is shoulder to shoulder)

Spine	
Neck	4
Shoulders	.24

Left Upper Arm	٠٩
Left Forearm	.25

Right Upper Arm	.38
Right Forearm	26

Participant joint diameter: (meters)

Left Elbow	.087
Left Wrist	-058

Right Elbow	.09	
Right Wrist	.06	

Questions:

- A. How safe did you feel? (0 is not safe at all, 5 is neutral, 10 is very safe)
- B. Do you think the robot hindered your motions during the task? (0 is robot completely prevented your motions, 5 is neutral, 10 is robot did not impede you motion)
- C. Did the robot perform logical motions? (0 is robot motions made no sense to you, 5 is neutral, 10 is robot motions made sense to you)
- D. What is your overall satisfaction with the HRC task? (0 is you would not work in this HRC cell again, 5 is neutral, 10 is you enjoyed working in this cell with the robot)

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For Task 1 (engine parts): (circle your answer to each question)

Task 1, Me	ethod 1:		20 0 M 10 10 10 10 10 10 10 10 10 10 10 10 10		7 (20 42					2
Question	A: (0 is not	safe at all,	5 is neutra	l, 10 is very	safe)					
0	1	2	3	4	5	6	7	×	9	10
Question	B: (0 is rob	ot complete	ely prevent	ed your mo	tions, 5 is r	neutral, 10	is robot dic	l not impede	you moti	on)
0	1	2	3	4	5	6	7	8	9	D0
Question	C: (0 is rob	ot motions	made no s	ense to you	, 5 is neutra	al, 10 is rob	ot motions	s made sens	e to you)	
0	1	2	3	4	5	6	7	×	9	10
Question [): (0 is you w	ould not wo	rk in this Hi	RC cell again,	5 is neutral,	10 is you er	njoyed work	ing in this cel	l with the re	obot)
0	1	2	3	×	5	6	7	8	9	10

Y		ne a ll		70000 0000	.61					
Task 1, Mo	ethod 2:						4			(
Question	A: (0 is not	safe at all,	5 is neutral,	10 is very	safe)	4.				
0	1	2	3	4	5	X	7	8	9	10
Question	B: (0 is robo	ot complete	ely prevente	ed your mo	tions, 5 is ı	neutral, 10 i	s robot did	not impede	you motic	on)
0	1	2	3	4	,5	6	7	\varkappa	9	10
Question	C: (0 is robo	ot motions	made no se	nse to you	, 5 is neutr	al, 10 is rob	ot motions	made sens	e to you)	
0	1	2	3	×	5	6	7	8	9	10
Question [): (0 is you w	ould not wo	rk in this HR	C cell again,	5 is neutral	, 10 is you en	joyed worki	ng in this cel	l with the ro	bot)
0	1	2	3	4	5	6	\times	8	9	10

Task 1, M	ethod 3:				man e se	1 1/ 2 to the part	entre manera de mo	es con 1		3
Question	A: (0 is not	safe at all,	5 is neutral	, 10 is very	safe)					
0	1	2	3	4	5	6	7	8	X	10
Question	B: (0 is rob	ot complete	ely prevent	ed your mo	otions, 5 is n	eutral, 10 i	is robot did	not impede	you motic	on)
0	1	2	3	4	5	6	7	8	9	Þ Ø
Question	C: (0 is rob	ot motions	made no se	ense to you	ı, 5 is neutra	al, 10 is rob	ot motions	made sens	e to you)	
0	1	2	3		5			×	9	10
Question [): (0 is you w	ould not wo	rk in this HR	C cell again	, 5 is neutral,	10 is you er	njoyed work	ing in this cel	l with the ro	bot)
0	1	2	3	4	*	6	7	8	9	10

comments: 1st method most efficient, hardest to track with gaze > not so safe

2nd & 3rd (133)

methods too slaw for application

Experience: [O

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For Task 2 (Sharework parts: metal tabs, cylinders, pallets): (circle your answer to each question)

Task 2, Me	ethod 1:									7
Question /	A: (0 is not	safe at all,	5 is neutral	, 10 is very	safe)					4
0	1	2	3	4	5	6	7	×	9	10
Question I	B: (0 is rob	ot complete	ly prevent	ed your mo	tions, 5 is n	eutral, 10 i	s robot did	not impede	e you motic	on)
0	1	2	3	4	5	6	7	×	9	10
Question	C: (0 is rob	ot motions	made no se	ense to you	, 5 is neutra	ıl, 10 is rob	ot motions	made sens	e to you)	
0	1	2	3	4	5	6	7	×	9	10
Question D	: (0 is you w	vould not wo	rk in this HR	C cell again,	5 is neutral,	10 is you en	joyed work	ing in this cel	l with the ro	bot)
0	1	2	3	4	×	6	7	8	9	10

Task 2, M	lethod 2:		-	1 10.4	Tr. India					1
Question	A: (0 is not	safe at all,	5 is neutra	l, 10 is very	safe)		1 5			
0	1	2	3	X	5	6	7	8	9	10
Question	B: (0 is rob	ot complete	ely prevent	ed your mo	tions, 5 is ı	neutral, 10	is robot did	not imped	e you moti	on)
0	1	2	3	4	5	6	×	8	9	10
Question	C: (0 is rob	ot motions	made no s	ense to you	, 5 is neutr	al, 10 is rob	ot motions	made sens	se to you)	
0	1	2	3	×	5	6	7	8	9	10
Question I	D: (0 is you w	ould not wo	rk in this HF	RC cell again,	5 is neutral,	, 10 is you er	njoyed workir	ng in this ce	ll with the ro	bot)
0	1	2	3	4	5	6	\times	8	9	10

Task 2, Me	ethod 3:		4,000					2.		3
Question	A: (0 is not	safe at all,	5 is neutral	, 10 is very	safe)					
0	1	2	\times	4	5	6	7	8	9	10
Question	B: (0 is robo	ot complete	ely prevent	ed your mo	otions, 5 is r	neutral, 10 i	s robot did	not imped	e you motio	on)
0	1	2	3	4	, 5	6	X	8	9	10
Question	C: (0 is robo	ot motions	made no se	ense to you	ı, 5 is neutra	al, 10 is rob	ot motions	made sens	e to you)	
0	1	2	3	4	*	6	7	8	9	10
Question D): (0 is you w	ould not wo	rk in this HR	C cell again	, 5 is neutral,	10 is you en	joyed workir	g in this cel	I with the ro	bot)
0	1	2	3	\times	5	6	77	8	9	10

Comments: T2-m4: A3 B6 C6 D4

T2-m5: A3 B6 C4 D4

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